

## Section 307. AGGREGATE SHOULDERS AND APPROACHES

**307.01 Description.** Construct an aggregate shoulder or approach on a prepared subgrade or an existing aggregate surface.

**307.02 Materials.** Materials shall meet the following requirements for the designated class.

Dense-Graded Aggregate 22A, 23A . . . . .	902
Salvaged Aggregate . . . . .	902

Class I Shoulders and Approaches - dense-graded aggregate 22A

Class II Shoulders and Approaches - dense-graded aggregate 23A

Class III Shoulders and Approaches - salvaged materials or dense-graded aggregate 23A

Class IV Shoulders - existing shoulder material

Salvaged materials shall be salvaged aggregate or other material secured from an existing road or stockpile approved by the Engineer. Remove particles exceeding 3 inches from borrow or salvaged materials and dispose of as specified in subsection 205.03.

### 307.03 Construction.

- A. **Trenching.** Excavate, shape and compact trench to the required width and depth. Unless otherwise permitted by the Engineer, trenching operations shall not be performed beyond the distance which will be backfilled and compacted the same day. Compact the bottom of the trench to not less than 95 percent of maximum unit weight at a moisture content not greater than optimum. Trenched material shall become the property of the Contractor.

In shoulder areas which cannot be backfilled and compacted the same day, the Contractor shall place and maintain traffic control devices per section 812. The shoulder material shall be brought flush the next day.

- B. **Constructing Shoulders and Approaches.** Place and compact material in a manner that will not damage an adjacent paved surface. Maintain aggregate material in a smooth, stable condition and provide dust control.

Scarify the existing surface full-width to a minimum 2 inch depth when adding aggregate material.

Maintain compacted aggregate flush as each course of HMA is placed.

At all times, the shoulder and berm shall be graded to provide positive drainage off the shoulder.

- C. **Density Requirements.**

1. **Class I Shoulders and Approaches.** Compact to not less than 98 percent of the maximum unit weight at a moisture content not greater than optimum

2. **Class II, III Shoulders and Approaches.** Compact to not less than 95 percent of the maximum unit weight at a moisture content not greater than optimum

3. **Class IV Shoulders.** Compact to form a stable, uniform surface

D. **Excess or Unsuitable Aggregate Material.** The Contractor may use excess or unsuitable aggregate in fills according to section 205. Any unused material shall be disposed of according to subsection 205.03 at the Contractor's expense.

### 307.04 Measurement and Payment.

Contract Item (Pay Item)	Pay Unit
Trenching . . . . .	Station
Shoulder, CI — . . . . .	Ton
Shoulder, CI — , LM . . . . .	Cubic Yard
Shoulder, CI — , CIP . . . . .	Cubic Yard
Shoulder, CI — , — inch . . . . .	Square Yard
Approach, CI — . . . . .	Ton
Approach, CI — , LM . . . . .	Cubic Yard
Approach, CI — , CIP . . . . .	Cubic Yard
Approach, CI, — , — inch . . . . .	Square Yard

A. **Trenching** will be measured by length along each pavement edge.

1. Trenched aggregate reused in shoulders or approaches, without loading and hauling, will not be paid for separately, with the cost considered to have been included in the price bid for **Trenching**.
2. Trenched aggregate reused in shoulders or approaches, at locations requiring loading and hauling, and will be paid for by volume in cubic yards, loose measure, measured at the point of delivery, as Shoulder, CI III, LM or Approach, CI III, LM.
3. Trenched aggregate used in fills will be measured and paid for as embankment, as specified in subsection 205.04.

B. **Shoulder and Approach**

1. When **Shoulder** or **Approach** is measured by weight, the pay weights for aggregates will be the scale weight of the material, including additives, unless the moisture content is more than 6 percent. Moisture tests will be made at the start of weighing operations and at any time thereafter when construction operations, weather conditions or any other cause may result in a change in the moisture content of the material. If the tests indicate a moisture content in excess of 6 percent, the excess over 6 percent will be deducted from the scale weight of the aggregate until such time as moisture tests indicate that the moisture content of the material is not more than 6 percent. The determination of moisture content and pay weights will be as specified in section 109.

2. When **Shoulder** or **Approach** is measured by area or volume in place, the longitudinal measurement will be made parallel to the center line and the transverse dimensions shall be as shown on the plans. Measurement by volume, compacted in place, will be based on the lines and dimensions called for on the plans.
  3. **Shoulder** or **Approach, LM** will be measured based on hauling unit dimensions and load count, prior to placement and compaction. Payment includes all costs for furnishing, hauling, placing, compacting and shaping the material at specified locations.
- C. Water will not be paid for separately but will be considered as having been included in the contract unit prices for related items of work.